

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

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ATMI PACKAGING, INC.,	)	Civil Action No. 1:10-cv-11247-RGS
Plaintiff,	)	
	)	MILLIPORE'S PRELIMINARY
v.	)	<u>INVALIDITY DISCLOSURES</u>
	)	
MILLIPORE CORPORATION,	)	
Defendant.	)	
	)	
-----X	)	

Pursuant to paragraph (A)(2) of the Court's March 1, 2011 Scheduling Order, Millipore Corporation (hereinafter "Millipore") submits its Preliminary Invalidity Disclosures regarding U.S. Patent No. 7,481,572 ("572 Patent"), U.S. Patent No. 7,086,778 ("778 Patent"), U.S. Patent No. 7,695,186 ("186 Patent"), U.S. Patent No. 7,267,479 ("479 Patent"), U.S. Patent No. 7,434,983 ("983 Patent"), U.S. Patent No. 7,357,567 ("567 Patent"), and U.S. Patent No. 7,384,027 ("027 Patent").

PRELIMINARY STATEMENT, RESERVATION OF RIGHTS,  
AND GENERAL OBJECTIONS

1. These disclosures are directed to invalidity issues only and do not address claim construction, infringement, or enforceability issues. Millipore reserves all rights with respect to such issues, including but not limited to its position that claims of the patents-in-suit are to be construed in a particular manner and are not infringed.

2. These invalidity disclosures are preliminary and are based on Millipore's current knowledge, understanding, and belief as to the facts and information available as of the date of these disclosures. Millipore has not completed its investigation, discovery, or analysis of information related to this action, and additional discovery may require Millipore to supplement or amend its Preliminary Invalidity Disclosures. While Millipore has made a good faith effort to

provide a comprehensive list of relevant prior art, Millipore reserves the right to modify or supplement its prior art list and invalidity disclosures at a later time, including modification or supplementation to include additional information that may be subsequently discovered. This reservation of rights includes the right to supplement prior art under 35 U.S.C. §§ 102(a), (b), (c), (d), (e), (f), and (g) based on information Millipore may learn during discovery in this case.

3. Any invalidity analysis depends, ultimately, upon claim construction, which is a question of law reserved for the Court. The claims have not yet been construed by the Court in this case and, thus, Millipore has not yet had the opportunity to compare the asserted claims of the '572 Patent, the '778 Patent, the '186 Patent, the '479 Patent, the '983 Patent, the '567 Patent, and the '027 Patent, as construed by the Court, with the prior art. Millipore does not infringe any valid claims of these patents under the appropriate construction. For purposes of these invalidity disclosures, Millipore takes into account the claim construction that would be necessary to support ATMI Packaging's disclosures that Millipore's Mobius® Single-use Mixing Systems (also known as Mobius® Disposable Mixing Systems) (hereinafter "Mobius® MIX") or Millipore's Mobius® Single-use Bioreactor (also known as Mobius® CellReady) (hereinafter "Mobius® CellReady") infringe. In taking ATMI Packaging's disclosures into account for purposes of invalidity, Millipore does not necessarily agree with the claim construction and makes no admission that the claim construction is correct or one that should be adopted by the Court, and Millipore reserves the right to take alternative positions on claim construction for purposes of noninfringement and invalidity, as the Court has not yet ruled on the construction to be given to the terms in the claims. Millipore further reserves the right to amend, supplement, or materially modify its Preliminary Invalidity Disclosures after the claims have been construed by the Court. Millipore also reserves the right to amend, supplement, or

materially modify its Preliminary Invalidity Disclosures based on any claim construction positions that ATMI Packaging may take in this case. Millipore also reserves the right to assert any other grounds for invalidity not already disclosed, such as, but not limited to, indefiniteness, best mode, enablement, or written description, based on any claim construction position ATMI Packaging may take in this case or based on any claim construction the Court may adopt.

4. Millipore's Preliminary Invalidity Disclosures are directed to the claims that ATMI Packaging asserts Millipore infringes ("the Asserted Claims"). ATMI Packaging alleges that Millipore directly infringes at least the following claims of the following patents by making, using, selling, and/or offering to sell the Millipore Mobius® MIX:

Claims 1, 5, 7, 8, 10, 11, 12, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32, 34, 35, 37, 38, 39, 40, 41, 43, 44, 65, 68, 70, 71, 74, 76, 77, 78, 79, and 80 of the '572 Patent;

Claims 65, 66, 67, 68, 69, 70, and 71 of the '778 Patent;

Claims 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 13, 15, and 19 of the '186 Patent; and

Claims 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, and 20 of the '479 Patent.

ATMI Packaging alleges that Millipore directly infringes at least the following claims of the following patents by making, using, selling, and/or offering to sell the Millipore Mobius® CellReady:

Claims 1, 5, 7, 8, 10, 11, 12, 20, 21, 22, 23, 24, 25, 26, 29, 30, 31, 32, 34, 35, 37, 38, 41, 43, 65, 68, 71, 74, 76, 77, 78, and 79 of the '572 Patent ;

Claims 65, 66, 67, 68, 69, 70, 71, and 72 of the '778 Patent;

Claims 13, 15, and 19 of the '186 Patent;

Claims 1, 4, 5, 8, 9, 14, 15, 16, 17, 18, and 19 of the '983 Patent;

Claims 1, 4, 10, 11, 12, 14, 16, and 20 of the '567 Patent; and

Claims 9, 11, and 13 of the '027 Patent.

Millipore reserves the right to amend or supplement its Preliminary Invalidity Disclosures to the extent that ATMI Packaging is permitted to modify, clarify, or change its infringement allegations.

5. Disclosures provided in the claim charts appearing in the exhibits is meant to be exemplary, and not limiting or exhaustive. Information that is not included in the charts is not meant to be an admission that the information is not present in the prior art references. In addition, the claim construction adopted by the Court could alter the information to be included in the charts and Millipore reserves the right to amend the charts as a result of claim construction. The prior art cited in the attached exhibits may disclose information bearing on the validity of the claims in varied ways including explicitly, inherently, or to show the state of the art in the relevant timeframes. Furthermore, identification of prior art below and in the attached claim charts and alignment of the prior art with the claim limitations is not an admission that ATMI Packaging's interpretation of the claims is correct or that the Millipore Mobius® MIX or the Millipore Mobius® CellReady infringe any of the asserted claims. Rather, the information provided is consistent with Millipore's right to argue invalidity and noninfringement in the alternative.

6. Prior art identified as part of disclosures of obviousness that are provided as alternatives to asserted anticipation are not to be construed to suggest that any prior art included as an obviousness reference is not anticipatory. It is not yet known the extent, if any, to which ATMI Packaging will contend that certain limitations of the claims at issue are not disclosed in the art identified by Millipore as anticipatory and, to the extent that an issue arises with respect to any such claim limitation, Millipore reserves the right to identify additional prior art that may

make obvious the information allegedly missing from the prior art provided as anticipatory references.

7. Millipore has provided citations to exemplary portions of the prior art in these invalidity disclosures. Millipore reserves the right to supplement its disclosures with additional citations and evidence.

### PRELIMINARY INVALIDITY DISCLOSURES

#### I. Preliminary Disclosure of Prior Art that Anticipate or Render Obvious Any of The Asserted Claims

Pursuant to the Court's Scheduling Order, Millipore separately identifies prior art that anticipates or renders obvious the identified patent claims asserted by ATMI Packaging in its Preliminary Infringement Contentions. Based on the information that is currently available to Millipore, Millipore identifies the following prior art references that anticipate and render obvious Asserted Claims of the patents-in-suit. Millipore reserves the right to modify or supplement this list at a later time based upon pertinent information that may be subsequently discovered. The disclosures refer to translations of prior art that is not in the English language and these translations are being provided to ATMI Packaging with the prior art.

1. U.S. Patent No. 3,002,895, issued October 3, 1961, to David Freedman, and commercial embodiments ("Freedman").

2. U.S. Patent No. 3,647,397, issued March 7, 1972, to Charles M. Coleman, and commercial embodiments ("Coleman").

3. U.S. Patent No. 4,209,259, issued June 24, 1980, to Robert L. Rains et al., and commercial embodiments ("Rains").

4. U.S. Patent No. 4,356,967, issued November 2, 1982, to Harold L. Lunick, and commercial embodiments ("Lunick").

5. U.S. Patent No. 4,668,632, issued May 26, 1987, to Michael W. Young et al., and commercial embodiments (“Young”).

6. U.S. Patent No. 4,783,172, issued on November 8, 1988, to Raj P. Garg, and commercial embodiments (“Garg”).

7. U.S. Patent No. 4,808,348, issued February 28, 1989, to Arthur G. Rudick et al., and commercial embodiments (“Rudick”).

8. U.S. Patent No. 5,061,448, issued October 29, 1991, to Stanley R. Mahe, and commercial embodiments (“Mahe”).

9. U.S. Patent No. 5,727,878, issued on March 17, 1998, to Joseph J. Sullivan, Jr., and commercial embodiments (“Sullivan”).

10. U.S. Patent No. 5,779,359, issued June 14, 1998, to Jeffrey S. Gambrill et al., and commercial embodiments (“Gambrill”).

11. U.S. Patent No. 5,803,137, issued September 8, 1998, to Gyo Shimotoyodome et al., and commercial embodiments (“Shimotoyodome”).

12. U.S. Patent No. 6,071,005, issued June 6, 2000, to Anand Ekambaram, et al., and commercial embodiments (“Ekambaram”).

13. German Patent Application Publication No. DE 195 42 227 A1, published May 15, 1997, by Norman Kunz, and commercial embodiments (“Kunz”). Millipore is providing an English translation to ATMI Packaging.

14. European Patent No. EP 0 033 292 B1, issued July 25, 1984, to Jean-Claude Deckmyn, and commercial embodiments (“Deckmyn”). Millipore is providing an English translation to ATMI Packaging.

15. European Patent No. EP 0 200 792 B1, issued May 9, 1990, to Herbert Märkl, and commercial embodiments (“Märkl”). Millipore is providing an English translation to ATMI Packaging.

16. European Patent Application Publication No. EP 0 343 885 A1, published November 29, 1989, by Abraham Rami Kalfon, and commercial embodiments (“Kalfon”).

17. International Patent Application Publication No. WO 98/33538, published August 6, 1998, by Thomas Buch-Rasmussen et al., and commercial embodiments (“Rasmussen”).

18. International Patent Application Publication No. WO 00/11953, published March 9, 2000, by Wayne R. Curtis, and commercial embodiments (“Curtis”).

19. Japanese Patent Application Publication No. H10-313718, published on December 2, 1998, by Tomoyuki Nishigami et al., and commercial embodiments (“Nishigami”). Millipore is providing an English translation to ATMI Packaging.

20. Japanese Patent Application Publication No. 61-212275, published on September 20, 1986, by Nakamura Tadamasa, and commercial embodiments (“Tadamasa”). Millipore is providing an English translation to ATMI Packaging.

21. Japanese Patent Application Publication No. 61-53902, published June 3, 1994, by Ashihara Yoshishige, and commercial embodiments (“Yoshishige”). Millipore is providing an English translation to ATMI Packaging.

22. Japanese Patent Application Publication No. 03-242297, published October 29, 1991, by Takemura Yoshiyuki, and commercial embodiments (“Yoshiyuki”). Millipore is providing an English translation to ATMI Packaging.

23. U. K. Patent Application Publication No. GB 2,202,549 A, published on September 28, 1998, by Philip John Whitney, and commercial embodiments (“Whitney”).

24. A Bearingless Motor for a Left Ventricular Assist Device (LVAD), Reto Schoeb, et al., 7th International Symposium on Magnetic Bearings, August 23-25, 2000 (“Schoeb”).

25. Hazardous, Restricted, and Perishable Mail, United States Postal Service Publication 52, published July 1999 (“USPS Publication 52”).

## II. Preliminary Invalidity Disclosures – Anticipation and Obviousness

The Court’s Scheduling Order requires that for each prior art reference identified in these Preliminary Invalidity Disclosures, Millipore must specify whether the prior art reference “anticipates or is relevant to the obviousness inquiry or both.” Based on the information that is currently available to Millipore, Millipore identifies the required information with respect to each of the Asserted Claims.

Art identified in the attached Exhibits A to G includes art that reflects common knowledge and the state of the art prior to the filing date of the Patents-in-Suit or at the time each alleged invention was made, including specifically with respect to mixing or pumping fluids using magnetically-driven impellers and mixing or pumping fluids using disposable devices. In many instances where a particular disclosure calls for or require combining references, any one or more of a number of references can be combined.

Exhibits A to G, filed herewith, are as follows:

<b>Exhibit</b>	<b>Preliminary Invalidity Disclosures U.S. Patent No.</b>
A	7,481,572
B	7,086,778
C	7,695,186
D	7,267,479
E	7,434,983
F	7,357,567
G	7,384,027



A. The '572 Patent

Claim 1 of the '572 Patent

Claim 1 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, Curtis, and Whitney.

Claim 1 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 5 of the '572 Patent

Claim 5 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, and Whitney.

Claim 5 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved

by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 7 of the '572 Patent

Claim 7 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, Curtis, and Whitney.

Claim 7 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 8 of the '572 Patent

Claim 8 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 8 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 10 of the '572 Patent

Claim 10 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, Curtis, and Whitney.

Claim 10 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 11 of the '572 Patent

Claim 11 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 11 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill

in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 12 of the '572 Patent

Claim 12 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 12 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 20 of the '572 Patent

Claim 20 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 20 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 21 of the '572 Patent

Claim 21 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 21 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 22 of the '572 Patent

Claim 22 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 22 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 23 of the '572 Patent

Claim 23 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 23 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 24 of the '572 Patent

Claim 24 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 24 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 25 of the '572 Patent

Claim 25 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 25 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 26 of the '572 Patent

Claim 26 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 26 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 29 of the '572 Patent

Claim 29 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 29 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill



in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 30 of the '572 Patent

Claim 30 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 30 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, Sullivan, and Curtis, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 31 of the '572 Patent

Claim 31 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 31 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 32 of the '572 Patent

Claim 32 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 32 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, Sullivan, and Curtis, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 34 of the '572 Patent

Claim 34 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 34 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 35 of the '572 Patent

Claim 35 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 35 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, Sullivan, Curtis, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 37 of the '572 Patent

Claim 37 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 37 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 38 of the '572 Patent

Claim 38 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 38 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, and Sullivan, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 39 of the '572 Patent

Claim 39 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 39 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg and Curtis, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 40 of the '572 Patent

Claim 40 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 40 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in

particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 41 of the '572 Patent

Claim 41 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 41 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 43 of the '572 Patent

Claim 43 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 43 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 44 of the '572 Patent

Claim 44 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 65 of the '572 Patent

Claim 65 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Schoeb.

Claim 65 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Curtis, Whitney, and Schoeb, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 68 of the '572 Patent

Claim 68 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Schoeb.

Claim 68 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Curtis, Whitney, and Schoeb, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for



mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 70 of the '572 Patent

Claim 70 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 70 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Curtis, Whitney, and Schoeb, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 71 of the '572 Patent

Claim 71 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 71 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 74 of the '572 Patent

Claim 74 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 74 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 76 of the '572 Patent

Claim 76 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 76 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill

in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, either alone or in combination with the general knowledge of one of skill in the art.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 77 of the '572 Patent

Claim 77 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, and Nishigami, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 78 of the '572 Patent

Claim 78 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, and Nishigami, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 79 of the '572 Patent

Claim 79 of the '572 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 79 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, Sullivan, Curtis, Whitney, and Nishigami, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

Claim 80 of the '572 Patent

Claim 80 of the '572 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '572 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rains, Sullivan, Whitney, and Nishigami, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '572 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '572 Patent.

B. The '778 Patent

Claim 65 of the '778 Patent

Claim 65 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Sullivan.

Claim 65 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Rains, Nishigami, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 66 of the '778 Patent

Claim 66 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Sullivan.

Claim 66 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Rains, Nishigami, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 67 of the '778 Patent

Claim 67 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Rains, Nishigami, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 68 of the '778 Patent

Claim 68 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Sullivan.

Claim 68 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Nishigami, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 69 of the '778 Patent

Claim 69 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Sullivan.

Claim 69 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Nishigami, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 70 of the '778 Patent

Claim 70 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 70 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Rains, Nishigami, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 71 of the '778 Patent

Claim 71 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Sullivan.

Claim 71 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Nishigami, and Tadamas, either alone or in combination.



The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

Claim 72 of the '778 Patent

Claim 72 of the '778 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Sullivan.

Claim 72 of the '778 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '778 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Garg, Sullivan, Rains, Nishigami, and Tadamasa, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '778 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '778 Patent.

C. The '186 Patent

Claim 1 of the '186 Patent

Claim 1 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, Ekambaram, and Whitney.

Claim 1 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 2 of the '186 Patent

Claim 2 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each Garg.

Claim 2 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 3 of the '186 Patent

Claim 3 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, Ekambaram, and Whitney.

Claim 3 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 5 of the '186 Patent

Claim 5 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, and Whitney.

Claim 5 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 6 of the '186 Patent

Claim 6 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 6 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 7 of the '186 Patent

Claim 7 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each Garg.

Claim 7 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, Rudick, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 8 of the '186 Patent

Claim 8 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Garg.

Claim 8 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 9 of the '186 Patent

Claim 9 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, and Whitney.

Claim 9 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill

in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamasa, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 10 of the '186 Patent

Claim 10 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg and Whitney.

Claim 10 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, and Whitney, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 11 of the '186 Patent

Claim 11 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Sullivan and Whitney.

Claim 11 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Ekambaram, Whitney, and Tadamasa, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 13 of the '186 Patent

Claim 13 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, and Whitney.

Claim 13 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Whitney, and Tadamasa, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 15 of the '186 Patent

Claim 15 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, and Whitney.

Claim 15 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

Claim 19 of the '186 Patent

Claim 19 of the '186 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Garg, Sullivan, and Whitney.

Claim 19 of the '186 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '186 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Sullivan, Whitney, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '186 Patent (including the problems of developing disposable and inexpensive devices for



mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '186 Patent.

D. The '479 Patent

Claim 1 of the '479 Patent

Claim 1 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 2 of the '479 Patent

Claim 2 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 3 of the '479 Patent

Claim 3 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 4 of the '479 Patent

Claim 4 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 5 of the '479 Patent

Claim 5 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 7 of the '479 Patent

Claim 7 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 8 of the '479 Patent

Claim 8 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 9 of the '479 Patent

Claim 9 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 10 of the '479 Patent

Claim 10 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 11 of the '479 Patent

Claim 11 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 12 of the '479 Patent

Claim 12 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 13 of the '479 Patent

Claim 9 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 14 of the '479 Patent

Claim 14 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rasmussen, Deckmyn, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 15 of the '479 Patent

Claim 15 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rasmussen, Deckmyn, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 16 of the '479 Patent

Claim 16 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Deckmyn, Kalfon, Kunz, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 20 of the '479 Patent

Claim 20 of the '479 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '479 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Garg, Rasmussen, Deckmyn, Schoeb, and USPS Publication 52, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for



mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

E. The '983 Patent

Claim 1 of the '983 Patent

Claim 1 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Märkl.

Claim 1 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Ekambaram, Rains, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 4 of the '983 Patent

Claim 4 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Märkl.

Claim 4 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Ekambaram, Rains, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 5 of the '983 Patent

Claim 5 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Ekambaram, Rains, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 8 of the '983 Patent

Claim 8 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Märkl.

Claim 8 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Ekambaram, Rains, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 9 of the '983 Patent

Claim 9 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Märkl.

Claim 9 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Coleman, Ekambaram, Rains, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 14 of the '983 Patent

Claim 14 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Sullivan and Märkl.

Claim 14 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill

in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Ekambaram, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 15 of the '983 Patent

Claim 15 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Sullivan and Märkl.

Claim 15 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Ekambaram, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 16 of the '983 Patent

Claim 16 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Sullivan.

Claim 16 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Ekambaram, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 17 of the '983 Patent

Claim 17 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Sullivan and Märkl.

Claim 17 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Ekambaram, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 18 of the '983 Patent

Claim 18 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Sullivan and Märkl.

Claim 18 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Ekambaram, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

Claim 19 of the '983 Patent

Claim 19 of the '983 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by Märkl.

Claim 19 of the '983 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '983 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Ekambaram, Sullivan, and Märkl, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '983 Patent (including the problems of developing disposable and inexpensive devices for

mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '983 Patent.

F. The '567 Patent

Claim 1 of the '567 Patent

Claim 1 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 4 of the '567 Patent

Claim 4 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 10 of the '567 Patent

Claim 10 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 11 of the '567 Patent

Claim 11 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 12 of the '567 Patent

Claim 12 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill



in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 14 of the '567 Patent

Claim 14 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 16 of the '567 Patent

Claim 16 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

Claim 20 of the '567 Patent

Claim 20 of the '567 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '567 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Rains, Sullivan, Gambrill, and Tadamas, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '567 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '567 Patent.

G. The '027 Patent

Claim 9 of the '027 Patent

Claim 9 of the '027 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Märkl, Whitney, Yoshishige, and Yoshiyuki.

Claim 9 of the '027 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '027 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Young, Märkl, Whitney, Yoshishige, and Yoshiyuki, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 11 of the '027 Patent

Claim 11 of the '027 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Whitney and Yoshiyuki.

Claim 11 of the '027 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '027 Patent, with the knowledge and common sense of one of ordinary skill in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Young, Märkl, Whitney, Yoshishige, and Yoshiyuki, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

Claim 13 of the '027 Patent

Claim 13 of the '027 Patent is invalid as it is anticipated under 35 U.S.C. § 102(b) by each of the references Märkl, Whitney, Yoshishige, and Yoshiyuki.

Claim 13 of the '027 Patent is rendered obvious under 35 U.S.C. § 103 to one of ordinary skill in the art of the '027 Patent, with the knowledge and common sense of one of ordinary skill

in the art, by all of the references cited in Section I above, either alone or in combination, and in particular Young, Märkl, Whitney, Yoshishige, and Yoshiyuki, either alone or in combination.

The motivation to combine the prior art references comes from express or implied teachings and suggestions in the prior art; from the nature of the general problems to be solved by the '027 Patent (including the problems of developing disposable and inexpensive devices for mixing or pumping a fluid); and from the knowledge and common sense of one of ordinary skill in the art of the '027 Patent.

### III. Preliminary Identification Of Prior Art Limitations

In accordance with the Court's Scheduling Order, Millipore is identifying prior art "on a limitation by limitation basis" in charts filed herewith as Exhibits A to G that identify prior art on a limitation by limitation basis, assuming constructions of terms that take into account ATMI Packaging's assertion of infringement in its disclosures. Millipore does not infringe any valid Asserted Claims under their appropriate claim constructions. For purposes of Millipore's preliminary invalidity contentions, Millipore assumes a construction of the asserted claims that takes into account the Infringement Disclosures of ATMI Packaging. Millipore reserves the right to rely on the entirety of each prior art reference for purposes of establishing invalidity under 35 U.S.C. §§ 102 or 103. Millipore further reserves all rights to supplement, amend, or materially modify its charts based on any information or prior art discovered during the course of this litigation. This disclosure is directed to invalidity issues only and does not address claim construction, noninfringement, or unenforceability issues. Millipore reserves all rights with respect to these issues.

#### IV. Other Grounds For Invalidity

The Court has not construed any of the claim terms, nor have the parties identified disputed claim terms or proposed constructions of such claim terms. In addition, Millipore awaits discovery from ATMI Packaging. Millipore, therefore, reserves its right to supplement or amend any and all of its invalidity disclosures based on any positions taken by ATMI Packaging on claim construction, claim construction by the Court, and any information Millipore may learn during the course of this litigation. Subject to the foregoing reservation of rights, Millipore discloses that the Asserted Claims are invalid under 35 U.S.C. § 112 for the reasons stated below.

As set forth in Millipore's invalidity disclosures below, many claim elements of the '186 Patent, the '572 Patent, the '778 Patent, the '983 Patent, the '479 Patent, the '027 Patent, and the '567 Patent fail to comply with 35 U.S.C. § 112, ¶ 1, particular as claims in these patents would have to be construed in order for there to be infringement.

#### A. The '572 Patent

##### 1. Indefiniteness

The claims of the '572 patent that ATMI Packaging asserts are infringed by the Mobius® MIX and Mobius® CellReady are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX and Mobius® CellReady renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 1, 5, 7, 8, and 10 to 12 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant

regards as his invention, particularly in view of the construction of the rotatable means for agitating the fluid that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 5, 21, 35, 37, 38, 68, 71, 74, and 76 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the motive device that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 11 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the receiver that mechanically captures the fluid-agitating means that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the magnetic stirrer that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the fluid-agitating element free of direct attachment to the first receiver but remaining captured for relative rotation and at least capable of moving toward and away from the interior compartment of the vessel in a limited fashion as the

result of a retention function provided by the portion of the first receiver that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 29 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the container including an opening through which the portion of the first receiver at least partially passes that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, and 34 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rigid receiver connected to the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 37 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rotatable drive magnet structure that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 77 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag and the flexible bag bounding a compartment that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 23 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the vessel that is initially hermetically

sealed that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 20 to 24 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rigid support structure having a passage for at least partially receiving the receiver that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the magnetic stirrer that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 11 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the receiver that mechanically captures the fluid-agitating means that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 7 and 76 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the first receiver including a peripheral flange mating with a portion of the bag (vessel) to create an interface that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 5, 7, 8, 10 to 12, and 79 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the



applicant regards as his invention, particularly in view of the construction of the bag capable of receiving and holding the fluid that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 5, 7, 8, 10 to 12, 21, 35, 37, 38, 68, 71, and 74 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the motive device that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, 29 to 32, 34, 41, 43, and 79 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 77 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the vessel in the form of a bag having an interior compartment for receiving and holding a fluid that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his

invention, particularly in view of the construction of the fluid-agitating element free of direct attachment to the first receiver but remaining captured for relative rotation and at least capable of moving toward and away from the interior compartment of the vessel in a limited fashion as the result of a retention function provided by the portion of the first receiver that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, 34, 41, and 43 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the bag capable of receiving and holding the (a) fluid that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, and 34 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rigid receiver connected to the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 31 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rigid receiver including a peripheral flange connected to the bag to form a seal that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 32 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rigid receiver positioned in contact with

an interior surface of the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 37 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rotatable drive magnet structure for forming a magnetic coupling with the fluid-agitating element that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 71 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the vessel for receiving the fluid, the vessel including a flexible sidewall portion and a rigid portion positioned adjacent a bottom surface of the vessel that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 78 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of a rigid receiver having a first end projecting through the lower portion of the collapsible container that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

## 2. Lack of Enablement

The disclosure of the '572 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '572 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken

by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX and Mobius® CellReady renders the claims not enabled for their full scope, including in particular at least the following:

Claims 1, 5, 7, 8, and 10 to 12 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rotatable means for agitating the fluid, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 5, 21, 35, 37, 38, 68, 71, 74, and 76 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a motive device, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 11 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a receiver that mechanically captures the fluid-agitating means, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a magnetic stirrer, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a fluid-agitating element free of direct attachment to the first receiver but remaining captured for relative rotation and at least capable of moving toward and away from the interior compartment of the vessel in a limited fashion as the result of a retention function provided by the portion of the first receiver, when

construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 29 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a container including an opening through which the portion of the first receiver at least partially passes, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, and 34 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rigid receiver connected to the bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 37 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rotatable drive magnet structure, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 77 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a flexible bag bounding a compartment when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 23 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a vessel that is initially hermetically sealed when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 20 to 24 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rigid support structure having a passage for at least partially receiving the receiver when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a magnetic stirrer when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 11 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a receiver that mechanically captures the fluid-agitating means when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 7 and 76 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a first receiver including a peripheral flange mating with a portion of the bag (vessel) to create an interface when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 5, 7, 8, 10 to 12, and 79 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a bag capable of receiving and holding the fluid when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 5, 7, 8, 10 to 12, 21, 35, 37, 38, 68, 71, and 74 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a motive device when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, 29 to 32, 34, 41, 43, and 79 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a bag when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 77 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a flexible bag when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a vessel in the form of a bag having an interior compartment for receiving and holding a fluid when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a fluid-agitating element free of direct attachment to the first receiver but remaining captured for relative rotation and at least capable of moving toward and away from the interior compartment of the vessel in a limited fashion as the result of a retention function provided by the portion of the first receiver when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, 34, 41, and 43 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a bag capable of receiving and holding the (a) fluid when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, and 34 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rigid receiver connected to the bag when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 31 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rigid receiver including a peripheral flange connected to the bag to form a seal when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 32 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rigid receiver positioned in contact with an interior surface of the bag when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 37 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rotatable drive magnet structure for forming a magnetic coupling with the fluid-agitating element when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 71 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a vessel for receiving the fluid, the vessel including a flexible sidewall portion and a rigid portion positioned adjacent a bottom surface of the vessel when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 78 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to enable the full scope of the claims for a device with a rigid receiver having a first end



projecting through the lower portion of the collapsible container when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

### 3. Lack of Written Description

The disclosure of the '572 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '572 patent are invalid for failure to comply with the written description requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. The disclosure of the '572 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 1, 5, 7, 8, and 10 to 12 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rotatable means for agitating the fluid adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 5, 21, 35, 37, 38, 68, 71, 74, and 76 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the motive device adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 11 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the receiver that mechanically captures the fluid-agitating means adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the magnetic stirrer adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the fluid-agitating element free of direct attachment to the first receiver but remaining captured for relative rotation and at least capable of moving toward and away from the interior compartment of the vessel in a limited fashion as the result of a retention function provided by the portion of the first receiver adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 29 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the container including an opening through which the portion of the first receiver at least partially passes adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, and 34 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rigid receiver connected to the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 37 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rotatable drive magnet structure adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 77 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the flexible bag and the flexible bag bounding a compartment adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 23 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the vessel that is initially hermetically sealed adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 20 to 24 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rigid support structure having a passage for at least partially receiving the receiver adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the magnetic stirrer adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 11 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the receiver that mechanically captures the fluid-agitating means adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 7 and 76 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the first receiver including a peripheral flange mating with a portion of the bag (vessel) to create an interface adequate to support the

construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 5, 7, 8, 10 to 12, and 79 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the bag capable of receiving and holding the fluid adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 5, 7, 8, 10 to 12, 21, 35, 37, 38, 68, 71, and 74 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the motive device adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, 29 to 32, 34, 41, 43, and 79 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 77 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the flexible bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the vessel in the form of a bag having an interior compartment for receiving and holding a fluid adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 25, 26, and 29 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the fluid-agitating element free of direct attachment

to the first receiver but remaining captured for relative rotation and at least capable of moving toward and away from the interior compartment of the vessel in a limited fashion as the result of a retention function provided by the portion of the first receiver adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, 34, 41, and 43 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the bag capable of receiving and holding the (a) fluid adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 30 to 32, and 34 fail to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rigid receiver connected to the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 31 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rigid receiver including a peripheral flange connected to the bag to form a seal adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 32 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rigid receiver positioned in contact with an interior surface of the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 37 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the rotatable drive magnet structure for forming a magnetic

coupling with the fluid-agitating element adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 71 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of the vessel for receiving the fluid, the vessel including a flexible sidewall portion and a rigid portion positioned adjacent a bottom surface of the vessel adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 78 fails to satisfy the requirements of Section 112, ¶ 1 because the '572 patent fails to provide written description of a rigid receiver having a first end projecting through the lower portion of the collapsible container adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

B. The '778 patent

1. Indefiniteness

The claims of the '778 patent that ATMI Packaging asserts are infringed by the Mobius® MIX and Mobius® CellReady are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX and Mobius® CellReady renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the pumping or mixing element positioned in the bag adjacent the cavity that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 67 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 68 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity that projects inwardly into the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 69 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the sidewall of the cavity that includes the surface that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the pumping or mixing element positioned in the bag adjacent the cavity that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity formed in a side of a flexible bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 67 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 68 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his



invention, particularly in view of the construction of the cavity that projects inwardly into the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 69 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the sidewall of the cavity that includes the surface that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 72 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rotatable shaft that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

## 2. Lack of Enablement

The disclosure of the '778 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '778 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX and Mobius® CellReady renders the claims not enabled for their full scope, including in particular at least the following:

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a flexible bag, when construed

as would be would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a cavity, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a pumping or mixing element positioned in the bag adjacent the cavity, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 67 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 68 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a cavity that projects inwardly into the bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 69 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a sidewall of the cavity that includes the surface, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a flexible bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a cavity, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a pumping or mixing element positioned in the bag adjacent the cavity, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a cavity formed in a side of a flexible bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 67 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 68 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a cavity that projects inwardly into the bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 69 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a sidewall of the cavity that includes the surface, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 72 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to enable the full scope of the claims for a device with a rotatable shaft, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

3. Lack of Written Description

The disclosure of the '778 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '778 patent are invalid for failure to comply with the written description requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. The disclosure of the '778 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the flexible bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the cavity adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 71 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the pumping or mixing element positioned in the bag adjacent the cavity adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 67 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 68 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the cavity that projects inwardly into the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claim 69 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the sidewall of the cavity that includes the surface adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the flexible bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the cavity adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the pumping or mixing element positioned in the bag adjacent the cavity adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 65 to 72 fail to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the cavity formed in a side of a flexible bag

adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 67 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 68 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the cavity that projects inwardly into the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 69 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the sidewall of the cavity that includes the surface adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 72 fails to satisfy the requirements of Section 112, ¶ 1 because the '778 patent fails to provide written description of the rotatable shaft adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

C. The '186 Patent

1. Indefiniteness

The claims of the '186 patent that ATMI Packaging asserts are infringed by the Mobius® MIX and Mobius® CellReady are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing

these claims as being met by the Mobius® MIX and Mobius® CellReady renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 1 to 11, 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the vessel comprising a bag including a flexible wall that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 11 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the receiver that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 6 and 8 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the motive device for rotating the fluid-agitating element that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the vessel comprising a bag including a

flexible wall that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

2. Lack of Enablement

The disclosure of the '186 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '186 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX and Mobius® CellReady renders the claims not enabled for their full scope, including in particular at least the following:

Claims 1 to 11, 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to enable the full scope of the claims for a device with a vessel comprising a bag including a flexible wall, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 11 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to enable the full scope of the claims for a device with a receiver, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 6 and 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to enable the full scope of the claims for a device with a motive device for rotating the fluid-



agitating element, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to enable the full scope of the claims for a device with a cavity, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to enable the full scope of the claims for a device with a vessel comprising a bag including a flexible wall, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to enable the full scope of the claims for a device with a cavity, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

### 3. Lack of Written Description

The disclosure of the '186 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '186 patent are invalid for failure to comply with the written description requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. The disclosure of the '186 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 1 to 11, 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to provide written description of the vessel comprising a bag including a

flexible wall adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 11 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to provide written description of the receiver adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 6 and 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to provide written description of the motive device for rotating the fluid-agitating element adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to provide written description of the cavity adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to provide written description of the vessel comprising a bag including a flexible wall adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 13, 15, and 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '186 patent fails to provide written description of the cavity adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

#### D. The '479 Patent

##### 1. Indefiniteness

The claims of the '479 patent that ATMI Packaging asserts are infringed by the Mobius® MIX are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2.

The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the system for pumping or mixing a fluid using a magnet forming part of a magnetic bearing and associated with a motive device that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the attachment supported by the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the attachment forming a coupling with the magnet through the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 13 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the the assembly for mixing a fluid using a magnet positioned in a flexible bag and having a magnetic field for forming part of a magnetic bearing with a motive device external to the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 15 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 13 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the attachment carried by the bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 14 to 15 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the magnet positioned in a bag and forming a magnetic bearing with an external motive device that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 16 and 20 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible plastic bag that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

2. Lack of Enablement

The disclosure of the '479 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '479 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® MIX renders the claims not enabled for their full scope, including in particular at least the following:

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a system for pumping or mixing a fluid using a magnet forming part of a magnetic bearing and associated with a motive device, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a flexible bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a attachment supported by the bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a attachment forming a coupling with

the magnet through the bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a the assembly for mixing a fluid using a magnet positioned in a flexible bag and having a magnetic field for forming part of a magnetic bearing with a motive device external to the bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 15 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a attachment carried by the bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 14 to 15 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a magnet positioned in a bag and forming a magnetic bearing with an external motive device, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 16 and 20 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to enable the full scope of the claims for a device with a flexible plastic bag, when construed as would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

3. Lack of Written Description

The disclosure of the '479 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '479 patent are invalid for failure to comply with the written description requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. The disclosure of the '479 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the system for pumping or mixing a fluid using a magnet forming part of a magnetic bearing and associated with a motive device adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the flexible bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the attachment supported by the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 1 to 8 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the attachment forming a coupling with the magnet through

the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the the assembly for mixing a fluid using a magnet positioned in a flexible bag and having a magnetic field for forming part of a magnetic bearing with a motive device external to the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 15 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 9 to 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the attachment carried by the bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 14 to 15 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the magnet positioned in a bag and forming a magnetic bearing with an external motive device adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.

Claims 16 and 20 fail to satisfy the requirements of Section 112, ¶ 1 because the '479 patent fails to provide written description of the flexible plastic bag adequate to support the construction that would be necessary for the Mobius® MIX to infringe, as asserted by ATMI Packaging.



E. The '983 Patent

1. Indefiniteness

The claims of the '983 patent that ATMI Packaging asserts are infringed by the Mobius® CellReady are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® CellReady renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the system for pumping or mixing a fluid using a magnet forming part of a magnetic bearing and associated with a motive device that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, and 5 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag disposed within the chamber so as to rest on the floor that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of hermetically sealed that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the shaft having a first end for receiving the mixer that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 4 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the shaft coupled to the mixer that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 5 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 5 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the cavity formed in a side of the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 15 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the shaft connected to the flexible bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 17 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his

invention, particularly in view of the construction of the flexible bag that surrounds the shaft that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 18 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the generally planar surface that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

2. Lack of Enablement

The disclosure of the '983 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '983 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures that Mobius® CellReady infringes these claims. Construing these claims as being met by the Mobius® CellReady renders the claims not enabled for their full scope, including in particular at least the following:

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a system for pumping or mixing a fluid using a magnet forming part of a magnetic bearing and associated with a motive device, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, and 5 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a flexible bag disposed within the chamber so as to rest on the floor, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of hermetically sealed, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a shaft having a first end for receiving the mixer, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 4 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a shaft coupled to the mixer, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 5 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a cavity, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 5 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a cavity formed in a side of the bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 15 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a shaft connected to the flexible bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 17 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a flexible bag that surrounds the shaft, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 18 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to enable the full scope of the claims for a device with a generally planar surface, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

### 3. Lack of Written Description

The disclosure of the '983 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '983 patent are invalid for failure to comply with the written description requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. The disclosure of the '983 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the system for pumping or mixing a fluid using a magnet forming part of a magnetic bearing and associated with a motive device adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, and 5 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the flexible bag disposed within the chamber so as

to rest on the floor adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of hermetically sealed adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1, 4, 5, 8, 9, and 14 to 19 fail to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the shaft having a first end for receiving the mixer adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 4 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the shaft coupled to the mixer adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 5 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the cavity adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 5 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the cavity formed in a side of the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 15 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the shaft connected to the flexible bag adequate to support the

construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 17 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the flexible bag that surrounds the shaft adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 18 fails to satisfy the requirements of Section 112, ¶ 1 because the '983 patent fails to provide written description of the generally planar surface adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

F. The '567 Patent

1. Indefiniteness

The claims of the '567 patent that ATMI Packaging asserts are infringed by the Mobius® CellReady are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® CellReady renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 1, 4, 10 to 12, 14, and 16 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the flexible bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1 and 4 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the rotatable magnetic pumping or mixing element positioned in the interior compartment of the flexible bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1 and 4 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the post projecting inwardly into the interior compartment for receiving the pumping or mixing element that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 10 to 12, and 14 fail to satisfy the requirements of Section 112, ¶ 2 they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the interior compartment into which a post projects that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 10 to 12, and 14 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the magnetic pumping or mixing element received on the post that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 2 because it fails to particularly point out and distinctly claim the subject matter which the applicant regards as his



invention, particularly in view of the construction of the vanes that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 16 and 20 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the post projecting within the bag for receiving the pumping or mixing element that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

## 2. Lack of Enablement

The disclosure of the '567 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '567 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® CellReady renders the claims not enabled for their full scope, including in particular at least the following:

Claims 1, 4, 10 to 12, 14, and 16 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a flexible bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1 and 4 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a rotatable magnetic pumping or mixing element positioned in the interior compartment of the flexible bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1 and 4 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a post projecting inwardly into the interior compartment for receiving the pumping or mixing element, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 10 to 12, and 14 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a interior compartment into which a post projects, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 10 to 12, and 14 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a magnetic pumping or mixing element received on the post, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a vanes, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 16 and 20 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to enable the full scope of the claims for a device with a post projecting within the bag for receiving the pumping or mixing element, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

### 3. Lack of Written Description

The disclosure of the '567 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '567 patent are invalid for failure to comply with the written description requirements of 35

U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures that Mobius® CellReady infringes these claims. The disclosure of the '567 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 1, 4, 10 to 12, 14, and 16 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the flexible bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1 and 4 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the rotatable magnetic pumping or mixing element positioned in the interior compartment of the flexible bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 1 and 4 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the post projecting inwardly into the interior compartment for receiving the pumping or mixing element adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 10 to 12, and 14 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the interior compartment into which a post projects adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 10 to 12, and 14 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the magnetic pumping or mixing element

received on the post adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claim 12 fails to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the vanes adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 16 and 20 fail to satisfy the requirements of Section 112, ¶ 1 because the '567 patent fails to provide written description of the post projecting within the bag for receiving the pumping or mixing element adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

G. The '027 Patent

1. Indefiniteness

The claims of the '027 patent that ATMI Packaging asserts are infringed by the Mobius® CellReady are invalid as a result of their failure to satisfy the requirements of 35 U.S.C. § 112, ¶ 2. The meanings of terms in these asserted claims are indefinite, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® CellReady renders indefinite one or more terms in each of these claims, including in particular at least the following:

Claims 9, 11, and 13 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his invention, particularly in view of the construction of the bag that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 9, 11, and 13 fail to satisfy the requirements of Section 112, ¶ 2 because they fail to particularly point out and distinctly claim the subject matter which the applicant regards as his

invention, particularly in view of the construction of the bag having a flexible sidewall creating an interior compartment capable of receiving and holding the fluid that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

2. Lack of Enablement

The disclosure of the '027 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to enable one of skill in the art to make or use the claimed inventions without undue experimentation. The asserted claims of the '027 patent are invalid for failure to comply with the enablement requirements of 35 U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. Construing these claims as being met by the Mobius® CellReady renders the claims not enabled for their full scope, including in particular at least the following:

Claims 9, 11, and 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '027 patent fails to enable the full scope of the claims for a device with a bag, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 9, 11, and 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '027 patent fails to enable the full scope of the claims for a device with a bag having a flexible sidewall creating an interior compartment capable of receiving and holding the fluid, when construed as would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

3. Lack of Written Description

The disclosure of the '027 patent fails to satisfy the requirements of 35 U.S.C. § 112, ¶ 1 because it fails to provide written description of the claimed invention. The asserted claims of the '027 patent are invalid for failure to comply with the written description requirements of 35

U.S.C. § 112, particularly in view of the positions taken by ATMI Packaging in its infringement disclosures. The disclosure of the '027 patent fails to provide written description that supports the scope of the claims necessary for ATMI Packaging's assertion of infringement, and in particular at least the following:

Claims 9, 11, and 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '027 patent fails to provide written description of the bag adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

Claims 9, 11, and 13 fail to satisfy the requirements of Section 112, ¶ 1 because the '027 patent fails to provide written description of the bag having a flexible sidewall creating an interior compartment capable of receiving and holding the fluid adequate to support the construction that would be necessary for the Mobius® CellReady to infringe, as asserted by ATMI Packaging.

V. Concurrent Document Production

Pursuant to the Court's Scheduling Order, Millipore is producing prior art references and other documents relevant to the invalidity defenses. These prior art references and other documents are cited in Section I above and in Exhibits A to G. Additional prior art can be found in the file histories for the '186 Patent, the '572 Patent, the '778 Patent, the '983 Patent, the '479 Patent, the '027 Patent, and the '567 Patent. Millipore's search for prior art references, additional documents and corroborating evidence relevant to the invalidity defenses is ongoing. Accordingly, Millipore reserves the right to continue to supplement its production as additional prior art references, additional documents, and corroborating evidence relevant to the invalidity defenses are obtained during the course of discovery.

MILLIPORE CORPORATION

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Dated: June 21, 2011

CERTIFICATE OF SERVICE

I hereby certify that this document filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non-registered participants on June 21, 2011.

/s/ Susan G. L. Glovsky